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| 10/828,604 | 04/21/2004 | Alan B. Doerr | 200401360-1 | 5542 |

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| EXAMINER | |
|---|---|
| RODRIGUEZ, RUTH C | |
| **ART UNIT** | **PAPER NUMBER** |
| 3677 | |

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/828,604 | DOERR ET AL. | |
| | Examiner | Art Unit | |
| | Ruth C. Rodriguez | 3677 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *01 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,6-10,12-14 and 16-19* is/are rejected.

7)☒ Claim(s) *3-5,11 and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Objections*

1. Claim 15 is objected to because of the following informalities: Claim 15, line 2, "unlatched" should be replaced with --latched--.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 6, 7, 10, 12-14 and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Basinger (US 6,666,340 B2).

A latch assembly (10) connects a component (17) to a rack (12). The assembly comprises a latch spring (38) and a lever (36). The latch spring is attached to a component (17) and movable between an engaged (Fig. 3) and a disengaged position (Fig. 4). The latch spring is engaged with a catch (24) that is attached to a rack in the engaged position (Fig. 3). The latch spring is disengaged from the catch in the disengaged position (Fig. 4). The lever is rotatably mounted to the component about an axis of rotation (42) between a latched position (Fig. 3) and an unlatched position (Fig.

4). Rotation of the lever from the latched position to the unlatched position moves the latch spring from the engaged position to the disengaged position in a direction parallel to the axis of rotation (from Fig. 3 to Fig. 4).

The latch spring further comprises a fixed end attached to the component, a spring body extending from the fixed end at an angle to the component and an engaging end (39) disposed on the spring body opposite to the fixed end. The engaging end is operable to engage the catch (Fig. 3).

The latch assembly further comprises a receptacle disposed on the catch and sized so as to receive one end of the latch spring (Fig. 3).

The catch is connected to a rail assembly (62) that is connected to the rack (Figs. 1-4).

A method for interfacing a component (17) with a rack (12). The method comprises: (a) engaging a latch spring (38) attached to the component with a catch (24) attached to the rack: (b) disengaging the latch spring from the catch by rotating a component mounted lever (36) about an axis so as to move the latch spring in a direction parallel to the axis (from Fig. 3 to Fig. 4); and (c) sliding the component at least partially out of the rack (to another opening 24).

The latch spring is disengaged by a paddle (end of 36 connected to latch spring near 39) disposed on the lever engaging a disengaging surface (edge of the latch spring near 39) of the latch spring and urging the latch spring in a direction parallel to the axis and out of engagement with the catch (Fig. 4).

The lever rotates approximately 90 degrees between the latched and unlatched position (Figs. 3 and 4).

The method further comprises rotating the lever to an unlatched position where the paddle disengages from the disengaging surface (Fig. 4).

The method further comprises sliding the component back into the rack such that an engaging surface of the latch spring contacts the catch and urges the latch spring to a position that allows the latch spring to engage the catch (to another opening 24 when the latch spring engages the other opening 24).

A latch comprises means for engaging (39) a component (17) attached to a latch spring (38) and a rack (12) attached catch (24) as the component is slid into the rack and means for disengaging (36) the latch spring and the catch by rotating a component mounted lever (36) about an axis (42) from a latch position to an unlatched position in order to move the latch spring in a direction parallel to the axis (from Fig. 3 to Fig. 4).

Further comprising means for returning the lever to the latched position (body of 38).

The latch spring is attached to a chassis (14) supporting the component and the catch is attached to a rail assembly (62) mounted in the rack.

4. Claims 1, 2, 6-10, 12-14 and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by James (US 5,860,302).

A latch assembly connects a component (21) to a rack (19). The assembly comprises a latch spring (30) and a lever (37). The latch spring is attached to a component and movable between an engaged (Fig. 4) and a disengaged position (Fig.

4a). The latch spring is engaged with a catch (31) that is attached to a rack in the engaged position (Fig. 4). The latch spring is disengaged from the catch in the disengaged position (Fig. 4a). The lever is rotatably mounted to the component about an axis of rotation between a latched position (Fig. 4) and an unlatched position (Fig. 4a). Rotation of the lever from the latched position to the unlatched position moves the latch spring from the engaged position to the disengaged position in a direction parallel to the axis of rotation (from Fig. 4 to Fig. 4a).

The latch spring further comprises a fixed end (16) attached to the component, a spring body extending from the fixed end at an angle to the component and an engaging end (36) disposed on the spring body opposite to the fixed end. The engaging end is operable to engage the catch (Fig. 4).

The latch further comprises a receptacle disposed on the catch and sized so as to receive one end of the latch spring (Fig. 4).

The catch is connected to a rail assembly (12) that is connected to the rack.

The lever further comprises a body (40) having a longitudinal axis, an axle extending from the body and rotatably connected to the component and a paddle (42) extending from the body in a direction perpendicular to the longitudinal axis of the body (Figs. 4 and 4a).

The paddle is operable to maintain the latch spring in the disengaged position when the lever is in the unlatched position (Fig. 4a).

The lever rotates approximately 90 degrees between the latched and unlatched positions (Figs. 4 and 4a).

A method for interfacing a component (21) with a rack (12). The method comprises: (a) engaging a latch spring (30) attached to the component with a catch (31) attached to the rack (Fig. 4): (b) disengaging the latch spring from the catch by rotating a component mounted lever about an axis so as to move the latch spring in a direction parallel to the axis (from Fig. 4 to Fig. 4a); and (c) sliding the component at least partially out of the rack (Fig. 5).

The latch spring is disengaged by a paddle (42) disposed on the lever engaging a disengaging surface of the latch spring and urging the latch spring in a direction parallel to the axis and out of engagement with the catch (Fig. 4a).

The method further comprises rotating the lever to an unlatched position where the paddle disengages from the disengaging surface (Fig. 4a).

The method further comprises sliding the component back into the rack such that an engaging surface of the latch spring contacts the catch and urges the latch spring to a position that allows the latch spring to engage the catch (Fig. 4).

A latch comprises means for engaging (36) a component (21) attached to a latch spring (30) and a rack (12) attached catch (31) as the component is slid into the rack and means for disengaging (37) the latch spring and the catch by rotating a component mounted lever (37) about an axis from a latch position (Fig. 4) to an unlatched position (Fig. 4a) in order to move the latch spring in a direction parallel to the axis (Fig. 4a).

Further comprising means for returning the lever to the latched position (tool 48).

The latch spring is attached to a chassis (13) supporting the component and the catch is attached to a rail assembly (19) mounted in the rack.

## Allowable Subject Matter

5. Claims 3-5, 11 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

## *Response to Arguments*

6. Applicant's arguments with respect to claims 1, 2, 6-10, 12-14 and 16-19 have been considered but are moot in view of the new ground(s) of rejection.

## *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Beun (US 4,702,535), Takagi (US 5,510,957), Suh et al. (US 5,823,644), Collins et al. (US 5,868,261), James (US 5,860,302), Crisp et al. (US 6,637,847 B2), Basinger et al. (US 6,666,340 B2) and Son et al. (US 6,978,903 B2) are cited to show state of the art with respect to latch assemblies having some or most of the features being claimed by the current application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth C. Rodriguez whose telephone number is (571) 272-7070. The examiner can normally be reached on M-F 07:15 - 15:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075.

Submissions of your responses by facsimile transmission are encouraged. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-6640.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ruth C. Rodriguez
Patent Examiner
Art Unit 3677

rcr
April 17, 2006

JJ Swann
Supervisory Patent Examiner
Technology Center 3600